International application No. PCT/KR2005/000828

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 C21D 9/46

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC7 C21D9/46, C21D9/48, C21D8/02, C21D8/08, B21B3/00, C22C38/00, C22C38/06, C22C38/14

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean Patents and applications for inventions since 1975.

Korean Utility models and applications for Utility models since 1975.

Japanese Utility models and applications for Utility models since 1975.

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used)
Patent and Utility Search System at KIPO.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Name and mailing address of the ISA/KR

Republic of Korea

Facsimile No. 82-42-472-7140

Korean Intellectual Property Office 920 Dunsan-dong, Seo-gu, Daejeon 302-701,

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
×	JP 10-130733 A (Kawasaki Steel Co.) 19 MAY 1998 See the whole document	45 - 52
Y	JP 10-130733 A (Kawasaki Steel Co.) 19 MAY 1998 See the whole document	1-3,6,7,10-12,15,16,23 -25,28,29,32-34,37,38
Y	JP 06-017.140 A (Nippon Steel Co.) 25 JANUARY 1994 See the whole document	1-3,6,7,10-12,15,16,23 -25,28,29,32-34,37,38
Y	JP 11-199991 A (Kawasaki Steel Co.) 27 JULY 1999 See table 3	3,25,34
Y	JP 2003-253378 A (Nippon Steel Co.) 10 SEPTEMBER 2003 See claim 1	6,7,15,16,28,29,37,38
Α	KR 2003-53802 A (POSCO) 2 JULY 2003 See claim1 and table 2	41,43
P	KR 2004-58489 A (POSCO) 5 JULY 2004 See the whole document	1 - 52

. [2	Further	documents are listed in the continuation of Box C.		See patent family annex.
* "A"	document	tegories of cited documents: defining the general state of the art which is not considered rticular relevance	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier app	olication or patent but published on or after the international	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive
"L"	cited to es	which may throw doubts on priority claim(s) or which is stablish the publication date of citation or other ason (as specified)	"Y"	step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is
"O"	document means	referring to an oral disclosure, use, exhibition or other		combined with one or more other such documents, such combination being obvious to a person skilled in the art
"P"		published prior to the international filing date but later iority date claimed	"&"	document member of the same patent family
Date	e of the act	ual completion of the international search	Date	of mailing of the international search report
	04	JULY 2005 (04.07.2005)		05 JULY 2005 (05.07.2005)

Authorized officer

CHUNG, SANG IK

Telephone No. 82-42-481-8145

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2005/000828

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT							
ategory*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No					
A	US 5,356,494 A (Kawasaki Steel Co.) 18 OCTOBER 1994 See the whole document	1 - 52					
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	a.						
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2005/000828

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 10-130733 A	19.05.1998	None	
JP 06-017140 A	25.01.1994	None	
JP 11-199991 A	27.07,1999	None	
JP 2003-253378 A	10.09.2003	None	
KR 2003-53802 A	02.07.2003	None	
KR 2004-58489 A	05.07.2004	None	•
US 5,356,494 A	18.10.1994	CA 2067043	27.10.1992
		EP 0510718	28.10.1992